

Raw Sequence Listing Error Summary

ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER: 09/483,672

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 ☐ Wrapped Nucleics The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 2 ☐ Wrapped Aminos The amino acid number/text at the end of each line "wrapped " down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 3 ☐ Incorrect Line Length The rules require that a line not exceed 72 characters in length. This includes spaces.
- 4 ☒ Misaligned Amino Acid The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs
Numbering between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
- 5 ☐ Non-ASCII This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
- 6 ☐ Variable Length Sequence(s) _____ contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and
indicate in the (ix) feature section that some may be missing.
- 7 ☐ PatentIn ver. 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
sequence(s) _____. Normally, PatentIn would automatically generate this section from the
previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section
to the subsequent amino acid sequence.
- 8 ☐ Skipped Sequences Sequence(s) _____ missing. If intentional, please use the following format for each skipped sequence:
(OLD RULES) (2) INFORMATION FOR SEQ ID NO:X:
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
- 9 ☐ Skipped Sequences Sequence(s) _____ missing. If intentional, please use the following format for each skipped sequence.
(NEW RULES) <210> sequence id number
<400> sequence id number
000
- 10 ☐ Use of n's or Xaa's Use of n's and/or Xaa's have been detected in the Sequence Listing.
(NEW RULES) Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 11 ☐ Use of <213>Organism Sequence(s) _____ are missing this mandatory field or its response.
(NEW RULES)
- 12 ☐ Use of <220>Feature Sequence(s) _____ are missing the <220>Feature and associated headings.
(NEW RULES) Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
- 13 ☐ PatentIn ver. 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted
file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

This Raw Listing contains the General
Information Section and those Sequences
containing ERRORS.

1 <110> Xu, Jiangchun
2 Dillon, Davin C.
3 Mitcham, Jennifer L.
4 Harlocker, Susan Louise
5 Jiang Yuqui
6 Reed, Steven G.
7 Kalos, Michael
8 Fanger, Gary
9 Retter, Mark
10 Solk, John
11 Day, Craig
12 <120> COMPOSITIONS AND METHODS FOR THERAPY AND
13 DIAGNOSIS OF PROSTATE CANCER
14 <130> 210121.427C10
15 <140> US/09/483,672
16 <141> 2000-01-14
17 <160> 590
18 <170> FastSEQ for Windows Version 3.0

Does Not Comply
Corrected Diskette Needed

error throughout

ERRORED SEQUENCES FOLLOW

19 <210> 26
20 <211> 820
21 <212> DNA
22 <213> Homo sapien
23 <220>
24 <221> misc_feature
25 <222> (1)...(820)
26 <223> n = A,T,C or G
27 <400> 26

next page

W--> 28 anattantac agtghtaatct tttcccagag gtgtgtanag ggaacggggc ctagaggcat 60
W--> 29 cccanagata ncttatanca acagtgtctt gaccaagagc tgctggggcac atttcctgca 120
30 gaaaagggtg cggtcccat cactcctcct ctcccatagc catcccagag gggtagtag 180
W--> 31 ccatcangcc ttccgtggga gggagtcang gaaacaacan accacagagc anacagacca 240
W--> 32 ntgatgacca tgggggggag cgagcctctt ccctgnaccg ggggtggcna nganagccta 300
W--> 33 nctgaggggt cacactataa acgttaacga ccnagatnan cacctgcttc aagtgcaccc 360
W--> 34 ttctacctg acnaccagn accnnnaact gcngcctggg gacagcctg ggancagcta 420
W--> 35 acnnagcact cacctgcccc cccatggcgg tncgntccc tggctcctgnc aagggaagct 480
W--> 36 ccctgttgga attncgggga naccaaggga nccccctcct ccantgtga aggaaaaann 540
W--> 37 gatggaattt tnccttccg gccnntccc tcttccttta cagccccct nntactctc 600
W--> 38 tccctctntt ntccgtgnc accttttnacc ccnnnatttc ccttnattga tcggannctn 660
W--> 39 ganattccac tncgcctnc cntcnatcng naanacnaaa nactntctna ccnggggat 720

PAGE: 2

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000

TIME: 14:08:18

Input Set: I483672.RAW

E--> 40 gggnnccctcg ntcatectct ctttttctnct accnccnntt ctttgctct ccttngatca 780tcca
 41 <210> 383
 E--> 42 <211> 155 154 show
 43 <212> PRT
 44 <213> Homo sapiens
 45 <400> 383
 46 Met Ala Gly Val Arg Asp Gln Gly Gln Gly Ala Arg Trp Pro His Thr
 47 5 10 15
 48 Gly Lys Arg Gly Pro Leu Leu Gln Gly Leu Thr Trp Ala Thr Gly Gly
 49 20 25 30
 50 His Cys Phe Ser Ser Glu Glu Ser Gly Ala Val Asp Gly Ala Gly Gln
 51 35 40 45
 52 Lys Lys Asp Arg Ala Trp Leu Arg Cys Pro Glu Ala Val Ala Gly Phe
 53 50 55 60
 54 Pro Leu Gly Ser Asp Cys Arg Glu Gly Gly Arg Gln Gly Cys Gly Gly
 55 65 70 75 80
 56 Ser Asp Asp Glu Asp Asp Leu Gly Val Ala Pro Gly Leu Ala Pro Ala
 57 85 90 95
 58 Trp Ala Leu Thr Gln Pro Pro Ser Gln Ser Pro Gly Pro Gln Ser Leu
 59 100 105 110
 60 Pro Ser Thr Pro Ser Ser Ile Trp Pro Gln Trp Val Ile Leu Ile Thr
 61 115 120 125
 62 Glu Leu Thr Ile Pro Ser Pro Ala His Gly Pro Pro Trp Leu Pro Asn
 63 130 135 140
 64 Ala Leu Glu Arg Gly His Leu Val Arg Glu
 65 145 150

↑
insert a
hard
return

66 <210> 477
 E--> 67 <211> 141 140 show
 68 <212> PRT
 69 <213> Homo sapiens
 70 <400> 477
 71 Met Asp Gly His Thr Asp Ile Trp Arg Asn His Met Asp Thr Pro Pro
 72 5 10 15
 73 His Tyr His Arg Asp Thr Asp Thr Arg Arg His His His Met Asp Thr
 74 20 25 30
 75 Leu Ser His Tyr His Arg Asp Thr Arg His His Thr Val Thr Trp Thr
 76 35 40 45
 77 His His His Thr His Glu His Thr Asp Thr Leu Pro Tyr Gly His Trp
 78 50 55 60
 79 His Thr His Cys His Thr Val Thr Trp Thr His Leu His Thr Ile Thr
 80 65 70 75 80
 81 Pro Pro His Thr Leu Pro Val Asp Thr Arg Thr His Arg His Cys His
 82 85 90 95
 83 Thr Asp Thr Gln Asn Thr Val Thr Arg Arg His His His Ala Asp Thr
 84 100 105 110
 85 Pro Pro Leu Trp Cys Arg Leu Asn Tyr Pro Ala Gly Gly Thr Ala Val
 86 115 120 125
 87 Ala Tyr Ser Cys Leu Ser Asp Trp Leu Ser Pro Glp

PAGE: 3

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

	88	130	135	140
	89	<210> 478		
E-->	90	<211> 144 143		
	91	<212> PRT		
	92	<213> Homo sapiens		
	93	<400> 478		
	94	Met Tyr Arg His Thr Glu Thr Leu Pro His Gly Asp Thr Val Thr Gln		
	95		5	10 15
	96	Ser His Gly His Thr Gly Ile Val Thr Trp Thr Asp Thr Gln Thr Tyr		
	97		20	25 30
	98	Gly Glu Ile Thr Trp Thr His His Thr Ile Thr Gly Thr Gln Thr		
	99		35	40 45
	100	His Gly Asp Ile Thr Thr Trp Thr His Cys His Thr Thr Gly Thr		
	101		50	55 60
	102	Arg Asp Ile Thr Leu Ser His Gly His Thr Ile Thr His Met Asn Thr		
	103		65	70 75 80
	104	Pro Thr His Cys His Met Asp Thr Gly Thr His Thr Ala Thr Leu Ser		
	105		85	90 95
	106	His Gly His Thr Ser Thr Pro Ser His His His Thr His Cys Leu Trp		
	107		100	105 110
	108	Thr Gln Gly His Thr Asp Thr Val Thr Gln Ile His Lys Thr Leu Ser		
	109		115	120 125
	110	His Gly Asp Ile Thr Met Gln Ile His His His Ser Gly Ala Val		
	111		130	135 140

	112	<210> 479		
E-->	113	<211> 223 222		
	114	<212> PRT		
	115	<213> Homo sapiens		
	116	<400> 479		
	117	Met Tyr Arg His Thr Glu Thr Leu Pro His Gly Asp Thr Val Thr Gln		
	118		5	10 15
	119	Ser His Glu His Thr Gly Ile Val Thr Trp Thr Asp Thr Gln Thr Tyr		
	120		20	25 30
	121	Gly Glu Ile Thr Leu Thr His His Thr Ile Thr Gly Thr Gln Thr		
	122		35	40 45
	123	His Gly Asp Ile Thr Thr Trp Thr His Cys His Thr Thr Thr Gly Thr		
	124		50	55 60
	125	Arg Asp Ile Thr Leu Ser His Gly His Thr Ile Thr His Met Asn Thr		
	126		65	70 75 80
	127	Pro Thr His Cys His Met Asp Thr Ala Thr His Thr Ala Thr Leu Ser		
	128		85	90 95
	129	His Gly His Thr Ser Ile Pro Ser His His His Thr His Cys His Val		
	130		100	105 110
	131	Asp Thr Arg Thr His Arg His Cys His Thr Asp Thr Gln Asn Thr Val		
	132		115	120 125
	133	Thr Arg Arg His His His Ala Asp Thr Pro Pro His Gly His Ser Thr		
	134		130	135 140
	135	Arg His Ser Ala Thr Gln Ile His His His Thr Glu Met Arg Thr His		

PAGE: 4

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000

TIME: 14:08:18

Input Set: I483672.RAW

```

136      145      150      155      160
137      Cys His Thr Asp Thr Thr Thr Ser Leu Pro His Phe His Val Ser Ala
138                      165      170      175
139      Gly Gly Val Gly Pro Thr Thr Leu Gly Ser Asn Arg Glu Ile Thr Trp
140                      180      185      190
141      Thr Tyr Ser Glu Gly Lys Ile Phe Phe Tyr Phe Leu Gly Asn Gln Ala
142                      195      200      205
143      Arg Leu Cys Leu Lys Lys Arg Lys Lys Lys Gln Tyr Thr Val
144                      210      215      220

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145      <210> 480
E--> 146      <211> 145 /144
147      <212> PRT
148      <213> Homo sapiens
149      <400> 480
150      Met Glu Pro Tyr Arg Gly Asn Glu Gln Pro Ser Gln Glu Gln Gly Val
151                      5      10      15
152      Cys Cys Leu Trp Gly Leu Gln Ser Leu Pro Gln Gly Ser Tyr Val Thr
153                      20      25      30
154      Val Gly Phe Leu Val Val Lys Arg Gln Thr Ile Gly Arg Leu Glu Arg
155                      35      40      45
156      Asp Phe Met Phe Lys Cys Arg Lys Gln Pro Gly Leu Pro Pro Ser Gly
157                      50      55      60
158      Leu Cys Leu Leu Trp Pro Trp Pro Asn Leu Glu Phe Gly Arg Arg Gln
159                      65      70      75      80
160      Asp Arg Leu Thr Trp Ser Ser Val Ser Val Ala Gly Val Cys Ala Cys
161                      85      90      95
162      Arg Ala Arg Pro Gly Trp Leu Gly Glu Gln Pro Ala Thr Ser Ala Gly
163                      100      105      110
164      Val Arg Leu Glu Gln Val Glu Gln Pro Pro Ala His Pro Leu Gln Glu
165                      115      120      125
166      Ala Gly Val Ala Arg Phe Pro Arg Pro Glu Trp Val Pro Pro Asn Gly
167                      130      135      140

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168      <210> 481
E--> 169      <211> 168 /167
170      <212> PRT
171      <213> Homo sapiens
172      <400> 481
173      Met His Gly Pro Gln Val Leu Ala Arg Cys Ser Glu Cys Ala Cys Pro
174                      5      10      15
175      Ala Leu Ala Ala Thr Ser Ala Gly Val Arg Leu Glu Gly Val Asp Arg
176                      20      25      30
177      Pro Pro Thr Leu Pro Ser Gln Gly Ser Gly Trp Pro Cys Ser His Ser
178                      35      40      45
179      Leu Ser Gly Cys His Leu Met Ala Asp Gly Ala Lys Ala Leu Gly Lys
180                      50      55      60
181      Ala Asp Gly Pro Trp Pro Tyr Leu Phe Val Arg Arg Thr Asp Val Pro
182                      65      70      75      80
183      Cys Pro Ala Ala Ser Glu Val Gly Gly Cys Ala Pro Ser Ser Trp Arg

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PAGE: 5

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

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184              85              90              95
185      Ala Leu Ala Glu Val Thr Gly Cys Ser Leu Gly Pro Leu Gly Leu Ala
186              100              105              110
187      Gln His Ala Gln Ala Ser Val Leu Leu Leu Cys Tyr Lys Trp Ser His
188              115              120              125
189      Ile Gly Glu Thr Ser Ser His Leu Arg Ser Lys Val Tyr Ala Ala Phe
190              130              135              140
191      Gly Gly Ser Ser Pro Cys Leu Lys Gly Leu Met Ser Leu Trp Ala Ser
192      145              150              155              160
193      Trp Leu Ser Arg Gly Arg Pro
194              165

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```

195 <210> 482
E--> 196 <211> 144 143
197 <212> PRT
198 <213> Homo sapiens
199 <400> 482
200      Met Glu Pro Tyr Arg Gly Asn Lys Lys Gln Val Gln Glu Lys Gly Val
201              5              10              15
202      Pro Cys Leu Trp Gly Ser Ser Pro Cys Leu Arg Cys His Met Ala Leu
203              20              25              30
204      Arg Ala Ser Trp Leu Pro Gly Gly Gly Pro Gln Ala Ile Leu Gly Arg
205              35              40              45
206      Thr Leu Cys Ser Ser Ala Glu Ser Ser Gln Asp Cys His Pro Gly Gly
207              50              55              60
208      Pro Ser Ile Ala Leu Ala Lys Pro Cys Arg Gly Val Trp Leu Leu Phe
209              65              70              75              80
210      Glu Pro Ala Trp Pro Pro Trp His Ala Arg Ala Pro Gly Ala Gly Thr
211              85              90              95
212      Leu Leu Arg Val Cys Leu Ser Cys Leu Gly Cys His Leu Cys Gly Gly
213              100              105              110
214      Ala Ser Gly Gly Gly Gly Pro Ala Thr Asn Leu Thr Gln Ser Arg Lys
215              115              120              125
216      Trp Met Ala Met Phe Pro Gln Pro Glu Trp Leu Pro Pro Asp Gly
217              130              135              140

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```

218 <210> 483
E--> 219 <211> 144 143
220 <212> PRT
221 <213> Homo sapiens
222 <400> 483
223      Met Glu Thr Gln Arg Gly Asn Lys Gln Arg Ala Gln Glu Gln Gly Val
224              5              10              15
225      Cys Cys Leu Trp Gly Ser Ser Pro Cys Leu Gly Ser Tyr Gly Thr Ala
226              20              25              30
227      Gly Phe Leu Val Ala Lys Arg Arg Thr Thr Gly Leu Leu Glu Glu Asp
228              35              40              45
229      Phe Thr Phe Lys Cys Arg Lys Gln Pro Lys Leu Pro Ser Met Arg Leu
230              50              55              60
231      Ser Leu Leu Trp Pro Trp Arg Asp Leu Lys Phe Val Pro Arg Gln Asp

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PAGE: 6

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

232	65	70	75	80
233	Lys Leu Thr Arg Ser Ser Val Ser Val Ala Gly Ala Tyr Ala Cys Arg			
234		85	90	95
235	Ala Gly Pro Gly Trp Leu Lys Glu Gln Pro Ala Thr Ser Ala Arg Val			
236		100	105	110
237	Arg Leu Val Gln Ala Glu His Pro Pro Pro His Pro Leu Glu Glu Val			
238		115	120	125
239	Gly Met Ala Arg Phe Pro Gln Pro Glu Cys Leu Pro Pro Tyr Cys			
240		130	135	140

241	<210> 523
242	<211> 254
243	<212> PRT
244	<213> Artificial Sequence
245	<220>
246	<223> Made in a lab
247	<400> 523
248	Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile
249	1 5 10 15
250	Leu Gly Val Ala Gly Ser Leu Val Ser Gly Ser Cys Ser Gln Ile Ile
251	20 25 30
252	Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp Gln Ala Ala Leu
253	35 40 45
254	Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln
255	50 55 60
256	Trp Val Leu Ser Ala Thr His Cys Phe Gln Asn Ser Tyr Thr Ile Gly
257	65 70 75 80
258	Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met
259	85 90 95
260	Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro Leu
261	100 105 110
262	Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu
263	115 120 125
264	Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala
265	130 135 140
266	Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Gly Arg
267	145 150 155 160
268	Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser Glu Glu
269	165 170 175
270	Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe Cys
271	180 185 190
W--> 272	Ala Gly Gly Gly Gln Kaa Gln Kaa Asp Ser Cys Asn Gly Asp Ser Gly
273	195 200 205
274	Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe Gly
275	210 215 220
276	Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val Tyr Thr Asn Leu
277	225 230 235 240
278	Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser
E--> 279	245-250 245 250 misaligned number - do not use TAB codes between numbers

280 <210> 525

(see item 4 on Error summary sheet)

PAGE: 7

RAW SEQUENCE LISTING PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

```

281 <211> 254
282 <212> PRT
283 <213> Homo sapien
284 <400> 525
285 Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile
286 1 5 10 15
287 Leu Gly Val Ala Gly Ser Leu Val Ser Gly Ser Cys Ser Gln Ile Ile
288 20 25 30
289 Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp Gln Ala Ala Leu
290 35 40 45
291 Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln
292 50 55 60
293 Trp Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser Tyr Thr Ile Gly
294 65 70 75 80
295 Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met
296 85 90 95
297 Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro Leu
298 100 105 110
299 Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu
300 115 120 125
301 Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala
302 130 135 140
303 Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Gly Arg
304 145 150 155 160
305 Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser Glu Glu
306 165 170 175
307 Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe Cys
308 180 185 190
309 Ala Gly Gly Gly Gln Asp Gln Lys Asp Ser Cys Asn Gly Asp Ser Gly
310 195 200 205
311 Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe Gly
312 210 215 220
313 Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val Tyr Thr Asn Leu
314 225 230 235 240
315 Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser
316 245 250

```

E-->

245 250

fix numbering

E--> 317 <210> 527
 318 <211> 321 320 (next page)
 319 <212> PRT

```

320 <213> Homo sapiens
321 <400> 527
322 Met Ser Ser Cys Asn Phe Thr His Ala Thr Phe Val Leu Ile Gly Ile
323 5 10 15
324 Pro Gly Leu Glu Lys Ala His Phe Trp Val Gly Phe Pro Leu Leu Ser
325 20 25 30
326 Met Tyr Val Val Ala Met Phe Gly Asn Cys Ile Val Val Phe Ile Val
327 35 40 45
328 Arg Thr Glu Arg Ser Leu His Ala Pro Met Tyr Leu Phe Leu Cys Met
329 50 55 60

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PAGE: 8

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

```

330      Leu Ala Ala Ile Asp Leu Ala Leu Ser Thr Ser Thr Met Pro Lys Ile
331          65              70              75              80
332      Leu Ala Leu Phe Trp Phe Asp Ser Arg Glu Ile Ser Phe Glu Ala Cys
333              85              90              95
334      Leu Thr Gln Met Phe Phe Ile His Ala Leu Ser Ala Ile Glu Ser Thr
335              100              105              110
336      Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro
337              115              120              125
338      Leu Arg His Ala Ala Val Leu Asn Asn Thr Val Thr Ala Gln Ile Gly
339              130              135              140
340      Ile Val Ala Val Val Arg Gly Ser Leu Phe Phe Phe Pro Leu Pro Leu
341              145              150              155              160
342      Leu Ile Lys Arg Leu Ala Phe Cys His Ser Asn Val Leu Ser His Ser
343              165              170              175
344      Tyr Cys Val His Gln Asp Val Met Lys Leu Ala Tyr Ala Asp Thr Leu
345              180              185              190
346      Pro Asn Val Val Tyr Gly Leu Thr Ala Ile Leu Leu Val Met Gly Val
347              195              200              205
348      Asp Val Met Phe Ile Ser Leu Ser Tyr Phe Leu Ile Ile Arg Thr Val
349              210              215              220
350      Leu Gln Leu Pro Ser Lys Ser Glu Arg Ala Lys Ala Phe Gly Thr Cys
351              225              230              235              240
352      Val Ser His Ile Gly Val Val Leu Ala Phe Tyr Val Pro Leu Ile Gly
353              245              250              255
354      Leu Ser Val Val His Arg Phe Gly Asn Ser Leu His Pro Ile Val Arg
355              260              265              270
356      Val Val Met Gly Asp Ile Tyr Leu Leu Leu Pro Pro Val Ile Asn Pro
357              275              280              285
358      Ile Ile Tyr Gly Ala Lys Thr Lys Gln Ile Arg Thr Arg Val Leu Ala
359              290              295              300
360      Met Phe Lys Ile Ser Cys Asp Lys Asp Leu Gln Ala Val Gly Gly Lys
361              305              310              315              320

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362      <210> 532
E--> 363      <211> 293 292 (next page)
364      <212> PRT
365      <213> Homo sapiens
366      <400> 532
367      Met His Leu Ser Phe Pro Ala Phe Leu Pro Pro Trp Met Asp Arg Gly
368              5              10              15
369      Ser Gly Lys Ser Asn Val Gly Thr Ser Gly Asp His Asn Asp Ser Ser
370              20              25              30
371      Val Lys Thr Leu Gly Ser Lys Arg Cys Lys Trp Cys Cys His Cys Phe
372              35              40              45
373      Pro Cys Cys Arg Gly Ser Gly Lys Ser Asn Val Val Ala Trp Gly Asp
374              50              55              60
375      Tyr Asp Asp Ser Ala Phe Met Asp Pro Arg Tyr His Val His Gly Glu
376              65              70              75              80
377      Asp Leu Asp Lys Leu His Arg Ala Ala Trp Trp Gly Lys Val Pro Arg
378              85              90              95

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PAGE: 9

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

```

379      Lys Asp Leu Ile Val Met Leu Arg Asp Thr Asp Val Asn Lys Arg Asp
380              100                      105                      110
381      Lys Gln Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly Asn Ser
382              115                      120                      125
383      Glu Val Val Lys Leu Val Leu Asp Arg Arg Cys Gln Leu Asn Val Leu
384              130                      135                      140
385      Asp Asn Lys Lys Arg Thr Ala Leu Thr Lys Ala Val Gln Cys Gln Glu
386              145                      150                      155                      160
387      Asp Glu Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro Asn Ile
388              165                      170                      175
389      Pro Asp Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Val Tyr Asn Glu
390              180                      185                      190
391      Asp Lys Leu Met Ala Lys Ala Leu Leu Tyr Gly Ala Asp Ile Glu
392              195                      200                      205
393      Ser Lys Asn Lys His Gly Leu Thr Pro Leu Leu Leu Gly Ile His Glu
394              210                      215                      220
395      Gln Lys Gln Gln Val Val Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu
396              225                      230                      235                      240
397      Asn Ala Leu Asp Arg Tyr Gly Arg Thr Ala Leu Ile Leu Ala Val Cys
398              245                      250                      255
399      Cys Gly Ser Ala Ser Ile Val Ser Pro Leu Leu Glu Gln Asn Val Asp
400              260                      265                      270
401      Val Ser Ser Gln Asp Leu Glu Arg Arg Pro Glu Ser Met Leu Phe Leu
402              275                      280                      285
403      Val Ile Ile Met
404              290

```

```

405      <210> 534
E--> 406      <211> 267 266 (next page)
407      <212> PRT
408      <213> Homo sapiens
409      <400> 534
410      Met Tyr Lys Leu Gln Cys Asn Asn Cys Ala Thr Asn Gly Ala Thr Glu
411              5                      10                      15
412      Arg Lys Gln Ala Ala Gly Ser Gly Ala Gly Tyr Ala Leu Pro Ser Ala
413              20                      25                      30
414      Leu Gln Ser Met Pro Gln Gly Ser Tyr Ala Thr Ala Arg Phe Leu Val
415              35                      40                      45
416      Ala Lys Arg Pro Thr Thr Gly His Leu Glu Lys Glu Phe Met Phe His
417              50                      55                      60
418      Cys Arg Lys Gln Pro Gly Ser Pro Ser Arg Gly Leu Gly Leu Leu Trp
419              65                      70                      75                      80
420      Pro Trp Pro Asp Ile Glu Phe Val Pro Arg Gln Asp Lys Leu Thr Gln
421              85                      90                      95
422      Ser Ser Val Leu Val Pro Gln Ile Cys Ala Cys Gln Thr Arg Pro Asn
423              100                      105                      110
424      Trp Leu Asn Glu Gln Pro Ala Thr Ser Ala Gly Val Arg Leu Glu Glu
425              115                      120                      125
426      Val Asp Gln Pro Pro Thr Leu Pro Ser Gln Gly Ser Gly Trp Pro Cys
427              130                      135                      140

```

PAGE: 10

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

```

428      Ser His Ser Leu Ser Gly Cys His Leu Met Ala Asp Ile Ala Lys Ala
429      145                      150                      155                      160
430      Leu Gly Lys Ala Asp Gly Pro Trp Pro Tyr Leu Phe Val Arg Arg Thr
431                      165                      170                      175
432      Asp Val Pro Cys Pro Ala Ala Ser Glu Val Gly Gly Cys Ala Pro Ser
433                      180                      185                      190
434      Ser Trp His Thr Leu Ala Glu Val Thr Gly Cys Ser Leu Ser Pro Leu
435                      195                      200                      205
436      Ser Leu Ala Gln His Ala Gln Ala Ser Val Leu Leu Leu Cys Tyr Lys
437      210                      215                      220
438      Trp Ser His Ile Gly Glu Thr Ser Ser His Leu Arg Ser Lys Val Tyr
439      225                      230                      235                      240
440      Ala Ala Phe Gly Gly Ser Ser Pro Cys Leu Lys Gly Leu Met Ser Leu
441                      245                      250                      255
442      Trp Ala Ser Trp Leu Pro Arg Gly Arg Pro
443                      260                      265

```

E--> 444 <210> 537
 445 <211> 1229 /228 (p.13)
 446 <212> PRT
 447 <213> Homo sapiens
 448 <400> 537

```

449      Met Leu Pro Val Tyr Gln Glu Val Lys Pro Asn Pro Leu Gln Asp Ala
450                      5                      10                      15
451      Asn Leu Cys Ser Arg Val Phe Phe Trp Trp Leu Asn Pro Leu Phe Lys
452                      20                      25                      30
453      Ile Gly His Lys Arg Arg Leu Glu Glu Asp Asp Met Tyr Ser Val Leu
454                      35                      40                      45
455      Pro Glu Asp Arg Ser Gln His Leu Gly Glu Glu Leu Gln Gly Phe Trp
456                      50                      55                      60
457      Asp Lys Glu Val Leu Arg Ala Glu Asn Asp Ala Gln Lys Pro Ser Leu
458                      65                      70                      75                      80
459      Thr Arg Ala Ile Ile Lys Cys Tyr Trp Lys Ser Tyr Leu Val Leu Gly
460                      85                      90                      95
461      Ile Phe Thr Leu Ile Glu Glu Ser Ala Lys Val Ile Gln Pro Ile Phe
462                      100                     105                     110
463      Leu Gly Lys Ile Ile Asn Tyr Phe Glu Asn Tyr Asp Pro Met Asp Ser
464                      115                     120                     125
465      Val Ala Leu Asn Thr Ala Tyr Ala Tyr Ala Thr Val Leu Thr Phe Cys
466                      130                     135                     140
467      Thr Leu Ile Leu Ala Ile Leu His His Leu Tyr Phe Tyr His Val Gln
468                      145                     150                     155                      160
469      Cys Ala Gly Met Arg Leu Arg Val Ala Met Cys His Met Ile Tyr Arg
470                      165                     170                      175
471      Lys Ala Leu Arg Leu Ser Asn Met Ala Met Gly Lys Thr Thr Thr Gly
472                      180                     185                      190
473      Gln Ile Val Asn Leu Leu Ser Asn Asp Val Asn Lys Phe Asp Gln Val
474                      195                     200                      205
475      Thr Val Phe Leu His Phe Leu Trp Ala Gly Pro Leu Gln Ala Ile Ala
476                      210                     215                      220

```

Input Set: I483672.RAW

```

477 Val Thr Ala Leu Leu Trp Met Glu Ile Gly Ile Ser Cys Leu Ala Gly
478 225 230 235 240
479 Met Ala Val Leu Ile Ile Leu Leu Pro Leu Gln Ser Cys Phe Gly Lys
480 245 250 255
481 Leu Phe Ser Ser Leu Arg Ser Lys Thr Ala Thr Phe Thr Asp Ala Arg
482 260 265 270
483 Ile Arg Thr Met Asn Glu Val Ile Thr Gly Ile Arg Ile Ile Lys Met
484 275 280 285
485 Tyr Ala Trp Glu Lys Ser Phe Ser Asn Leu Ile Thr Asn Leu Arg Lys
486 290 295 300
487 Lys Glu Ile Ser Lys Ile Leu Arg Ser Ser Cys Leu Arg Gly Met Asn
488 305 310 315 320
489 Leu Ala Ser Phe Phe Ser Ala Ser Lys Ile Ile Val Phe Val Thr Phe
490 325 330 335
491 Thr Thr Tyr Val Leu Leu Gly Ser Val Ile Thr Ala Ser Arg Val Phe
492 340 345 350
493 Val Ala Val Thr Leu Tyr Gly Ala Val Arg Leu Thr Val Thr Leu Phe
494 355 360 365
495 Phe Pro Ser Ala Ile Glu Arg Val Ser Glu Ala Ile Val Ser Ile Arg
496 370 375 380
497 Arg Ile Gln Thr Phe Leu Leu Leu Asp Glu Ile Ser Gln Arg Asn Arg
498 385 390 395 400
499 Gln Leu Pro Ser Asp Gly Lys Lys Met Val His Val Gln Asp Phe Thr
500 405 410 415
501 Ala Phe Trp Asp Lys Ala Ser Glu Thr Pro Thr Leu Gln Gly Leu Ser
502 420 425 430
503 Phe Thr Val Arg Pro Gly Glu Leu Leu Ala Val Val Gly Pro Val Gly
504 435 440 445
505 Ala Gly Lys Ser Ser Leu Leu Ser Ala Val Leu Gly Glu Leu Ala Pro
506 450 455 460
507 Ser His Gly Leu Val Ser Val His Gly Arg Ile Ala Tyr Val Ser Gln
508 465 470 475 480
509 Gln Pro Trp Val Phe Ser Gly Thr Leu Arg Ser Asn Ile Leu Phe Gly
510 485 490 495
511 Lys Lys Tyr Glu Lys Glu Arg Tyr Glu Lys Val Ile Lys Ala Cys Ala
512 500 505 510
513 Leu Lys Lys Asp Leu Gln Leu Leu Glu Asp Gly Asp Leu Thr Val Ile
514 515 520 525
515 Gly Asp Arg Gly Thr Thr Leu Ser Gly Gly Gln Lys Ala Arg Val Asn
516 530 535 540
517 Leu Ala Arg Ala Val Tyr Gln Asp Ala Asp Ile Tyr Leu Leu Asp Asp
518 545 550 555 560
519 Pro Leu Ser Ala Val Asp Ala Glu Val Ser Arg His Leu Phe Glu Leu
520 565 570 575
521 Cys Ile Cys Gln Ile Leu His Glu Lys Ile Thr Ile Leu Val Thr His
522 580 585 590
523 Gln Leu Gln Tyr Leu Lys Ala Ala Ser Gln Ile Leu Ile Leu Lys Asp
524 595 600 605
525 Gly Lys Met Val Gln Lys Gly Thr Tyr Thr Glu Phe Leu Lys Ser Gly
526 610 615 620

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DATE: 02/08/2000
TIME: 14:08:18

527	Ile	Asp	Phe	Gly	Ser	Leu	Leu	Lys	Lys	Asp	Asn	Glu	Glu	Ser	Glu	Gln
528	625						630					635				640
529	Pro	Pro	Val	Pro	Gly	Thr	Pro	Thr	Leu	Arg	Asn	Arg	Thr	Phe	Ser	Glu
530					645					650						655
531	Ser	Ser	Val	Trp	Ser	Gln	Gln	Ser	Ser	Arg	Pro	Ser	Leu	Lys	Asp	Gly
532				660						665						670
533	Ala	Leu	Glu	Ser	Gln	Asp	Thr	Glu	Asn	Val	Pro	Val	Thr	Leu	Ser	Glu
534			675						680					685		
535	Glu	Asn	Arg	Ser	Glu	Gly	Lys	Val	Gly	Phe	Gln	Ala	Tyr	Lys	Asn	Tyr
536		690					695					700				
537	Phe	Arg	Ala	Gly	Ala	His	Trp	Ile	Val	Phe	Ile	Phe	Leu	Ile	Leu	Leu
538	705					710					715					720
539	Asn	Thr	Ala	Ala	Gln	Val	Ala	Tyr	Val	Leu	Gln	Asp	Trp	Trp	Leu	Ser
540					725						730					735
541	Tyr	Trp	Ala	Asn	Lys	Gln	Ser	Met	Leu	Asn	Val	Thr	Val	Asn	Gly	Gly
542				740						745				750		
543	Gly	Asn	Val	Thr	Glu	Lys	Leu	Asp	Leu	Asn	Trp	Tyr	Leu	Gly	Ile	Tyr
544			755					760						765		
545	Ser	Gly	Leu	Thr	Val	Ala	Thr	Val	Leu	Phe	Gly	Ile	Ala	Arg	Ser	Leu
546		770					775					780				
547	Leu	Val	Phe	Tyr	Val	Leu	Val	Asn	Ser	Ser	Gln	Thr	Leu	His	Asn	Lys
548	785					790					795					800
549	Met	Phe	Glu	Ser	Ile	Leu	Lys	Ala	Pro	Val	Leu	Phe	Phe	Asp	Arg	Asn
550					805					810					815	
551	Pro	Ile	Gly	Arg	Ile	Leu	Asn	Arg	Phe	Ser	Lys	Asp	Ile	Gly	His	Leu
552				820					825					830		
553	Asp	Asp	Leu	Leu	Pro	Leu	Thr	Phe	Leu	Asp	Phe	Ile	Gln	Thr	Leu	Leu
554			835					840						845		
555	Gln	Val	Val	Gly	Val	Val	Ser	Val	Ala	Val	Ala	Val	Ile	Pro	Trp	Ile
556		850					855						860			
557	Ala	Ile	Pro	Leu	Val	Pro	Leu	Gly	Ile	Ile	Phe	Ile	Phe	Leu	Arg	Arg
558	865					870					875					880
559	Tyr	Phe	Leu	Glu	Thr	Ser	Arg	Asp	Val	Lys	Arg	Leu	Glu	Ser	Thr	Thr
560					885					890					895	
561	Arg	Ser	Pro	Val	Phe	Ser	His	Leu	Ser	Ser	Ser	Leu	Gln	Gly	Leu	Trp
562				900						905				910		
563	Thr	Ile	Arg	Ala	Tyr	Lys	Ala	Glu	Glu	Arg	Cys	Gln	Glu	Leu	Phe	Asp
564			915					920						925		
565	Ala	His	Gln	Asp	Leu	His	Ser	Glu	Ala	Trp	Phe	Leu	Phe	Leu	Thr	Thr
566		930					935					940				
567	S															

PAGE: 13

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

577 Trp Glu Tyr Gln Lys Arg Pro Pro Pro Ala Trp Pro His Glu Gly Val
 E--> 578 1025 1030 1035 1040
 579 Ile Ile Phe Asp Asn Val Asn Phe Met Tyr Ser Pro Gly Gly Pro Leu
 580 1045 1050 1055
 581 Val Leu Lys His Leu Thr Ala Leu Ile Lys Ser Gln Glu Lys Val Gly
 582 1060 1065 1070
 583 Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser Leu Ile Ser Ala Leu
 584 1075 1080 1085
 585 Phe Arg Leu Ser Glu Pro Glu Gly Lys Ile Trp Ile Asp Lys Ile Leu
 586 1090 1095 1100
 587 Thr Thr Glu Ile Gly Leu His Asp Leu Arg Lys Lys Met Ser Ile Ile
 E--> 588 1105 1110 1115 1120
 589 Pro Gln Glu Pro Val Leu Phe Thr Gly Thr Met Arg Lys Asn Leu Asp
 590 1125 1130 1135
 591 Pro Phe Asn Glu His Thr Asp Glu Glu Leu Trp Asn Ala Leu Gln Glu
 592 1140 1145 1150
 593 Val Gln Leu Lys Glu Thr Ile Glu Asp Leu Pro Gly Lys Met Asp Thr
 594 1155 1160 1165
 595 Glu Leu Ala Glu Ser Gly Ser Asn Phe Ser Val Gly Gln Arg Gln Leu
 596 1170 1175 1180
 597 Val Cys Leu Ala Arg Ala Ile Leu Arg Lys Asn Gln Ile Leu Ile Ile
 E--> 598 1185 1190 1195 1200
 599 Asp Glu Ala Thr Ala Asn Val Asp Pro Arg Thr Asp Glu Leu Ile Gln
 600 1205 1210 1215
 601 Lys Lys Ser Gly Arg Asn Leu Pro Thr Ala Pro Cys
 602 1220 1225

start
 numbers
 under
 first
 letter
 of amino
 acid

some
 errors

603 <210> 538
 E--> 604 <211> 1262 1261 (p.16)
 605 <212> PRT
 606 <213> Homo sapiens
 607 <400> 538
 608 Met Tyr Ser Val Leu Pro Glu Asp Arg Ser Gln His Leu Gly Glu Glu
 609 5 10 15
 610 Leu Gln Gly Phe Trp Asp Lys Glu Val Leu Arg Ala Glu Asn Asp Ala
 611 20 25 30
 612 Gln Lys Pro Ser Leu Thr Arg Ala Ile Ile Lys Cys Tyr Trp Lys Ser
 613 35 40 45
 614 Tyr Leu Val Leu Gly Ile Phe Thr Leu Ile Glu Glu Ser Ala Lys Val
 615 50 55 60
 616 Ile Gln Pro Ile Phe Leu Gly Lys Ile Ile Asn Tyr Phe Glu Asn Tyr
 617 65 70 75 80
 618 Asp Pro Met Asp Ser Val Ala Leu Asn Thr Ala Tyr Ala Tyr Ala Thr
 619 85 90 95
 620 Val Leu Thr Phe Cys Thr Leu Ile Leu Ala Ile Leu His His Leu Tyr
 621 100 105 110
 622 Phe Tyr His Val Gln Cys Ala Gly Met Arg Leu Arg Val Ala Met Cys
 623 115 120 125
 624 His Met Ile Tyr Arg Lys Ala Leu Arg Leu Ser Asn Met Ala Met Gly
 625 130 135 140

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

```

626      Lys Thr Thr Thr Gly Gln Ile Val Asn Leu Leu Ser Asn Asp Val Asn
627      145                      150                      155                      160
628      Lys Phe Asp Gln Val Thr Val Phe Leu His Phe Leu Trp Ala Gly Pro
629                      165                      170                      175
630      Leu Gln Ala Ile Ala Val Thr Ala Leu Leu Trp Met Glu Ile Gly Ile
631                      180                      185                      190
632      Ser Cys Leu Ala Gly Met Ala Val Leu Ile Ile Leu Leu Pro Leu Gln
633                      195                      200                      205
634      Ser Cys Phe Gly Lys Leu Phe Ser Ser Leu Arg Ser Lys Thr Ala Thr
635                      210                      215                      220
636      Phe Thr Asp Ala Arg Ile Arg Thr Met Asn Glu Val Ile Thr Gly Ile
637      225                      230                      235                      240
638      Arg Ile Ile Lys Met Tyr Ala Trp Glu Lys Ser Phe Ser Asn Leu Ile
639                      245                      250                      255
640      Thr Asn Leu Arg Lys Lys Glu Ile Ser Lys Ile Leu Arg Ser Ser Cys
641                      260                      265                      270
642      Leu Arg Gly Met Asn Leu Ala Ser Phe Phe Ser Ala Ser Lys Ile Ile
643                      275                      280                      285
644      Val Phe Val Thr Phe Thr Thr Tyr Val Leu Leu Gly Ser Val Ile Thr
645                      290                      295                      300
646      Ala Ser Arg Val Phe Val Ala Val Thr Leu Tyr Gly Ala Val Arg Leu
647      305                      310                      315                      320
648      Thr Val Thr Leu Phe Phe Pro Ser Ala Ile Glu Arg Val Ser Glu Ala
649                      325                      330                      335
650      Ile Val Ser Ile Arg Arg Ile Gln Thr Phe Leu Leu Leu Asp Glu Ile
651                      340                      345                      350
652      Ser Gln Arg Asn Arg Gln Leu Pro Ser Asp Gly Lys Lys Met Val His
653                      355                      360                      365
654      Val Gln Asp Phe Thr Ala Phe Trp Asp Lys Ala Ser Glu Thr Pro Thr
655      370                      375                      380
656      Leu Gln Gly Leu Ser Phe Thr Val Arg Pro Gly Glu Leu Leu Ala Val
657      385                      390                      395                      400
658      Val Gly Pro Val Gly Ala Gly Lys Ser Ser Leu Leu Ser Ala Val Leu
659                      405                      410                      415
660      Gly Glu Leu Ala Pro Ser His Gly Leu Val Ser Val His Gly Arg Ile
661                      420                      425                      430
662      Ala Tyr Val Ser Gln Gln Pro Trp Val Phe Ser Gly Thr Leu Arg Ser
663                      435                      440                      445
664      Asn Ile Leu Phe Gly Lys Lys Tyr Glu Lys Glu Arg Tyr Glu Lys Val
665      450                      455                      460
666      Ile Lys Ala Cys Ala Leu Lys Lys Asp Leu Gln Leu Leu Glu Asp Gly
667      465                      470                      475                      480
668      Asp Leu Thr Val Ile Gly Asp Arg Gly Thr Leu Ser Gly Gly Gln
669                      485                      490                      495
670      Lys Ala Arg Val Asn Leu Ala Arg Ala Val Tyr Gln Asp Ala Asp Ile
671                      500                      505                      510
672      Tyr Leu Leu Asp Asp Pro Leu Ser Ala Val Asp Ala Glu Val Ser Arg
673      515                      520                      525
674      His Leu Phe Glu Leu Cys Ile Cys Gln Ile Leu His Glu Lys Ile Thr
675      530                      535                      540

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Input Set: I483672.RAW

676	Ile	Leu	Val	Thr	His	Gln	Leu	Gln	Tyr	Leu	Lys	Ala	Ala	Ser	Gln	Ile
677	545					550					555					560
678	Leu	Ile	Leu	Lys	Asp	Gly	Lys	Met	Val	Gln	Lys	Gly	Thr	Tyr	Thr	Glu
679					565					570						575
680	Phe	Leu	Lys	Ser	Gly	Ile	Asp	Phe	Gly	Ser	Leu	Leu	Lys	Lys	Asp	Asn
681					580				585						590	
682	Glu	Glu	Ser	Glu	Gln	Pro	Pro	Val	Pro	Gly	Thr	Pro	Thr	Leu	Arg	Asn
683					595				600						605	
684	Arg	Thr	Phe	Ser	Glu	Ser	Ser	Val	Trp	Ser	Gln	Gln	Ser	Ser	Arg	Pro
685					610				615						620	
686	Ser	Leu	Lys	Asp	Gly	Ala	Leu	Glu	Ser	Gln	Asp	Thr	Glu	Asn	Val	Pro
687	625					630					635					640
688	Val	Thr	Leu	Ser	Glu	Glu	Asn	Arg	Ser	Glu	Gly	Lys	Val	Gly	Phe	Gln
689					645					650						655
690	Ala	Tyr	Lys	Asn	Tyr	Phe	Arg	Ala	Gly	Ala	His	Trp	Ile	Val	Phe	Ile
691					660				665						670	
692	Phe	Leu	Ile	Leu	Leu	Asn	Thr	Ala	Ala	Gln	Val	Ala	Tyr	Val	Leu	Gln
693					675				680						685	
694	Asp	Trp	Trp	Leu	Ser	Tyr	Trp	Ala	Asn	Lys	Gln	Ser	Met	Leu	Asn	Val
695					690				695				700			
696	Thr	Val	Asn	Gly	Gly	Gly	Asn	Val	Thr	Glu	Lys	Leu	Asp	Leu	Asn	Trp
697	705					710					715					720
698	Tyr	Leu	Gly	Ile	Tyr	Ser	Gly	Leu	Thr	Val	Ala	Thr	Val	Leu	Phe	Gly
699					725					730						735
700	Ile	Ala	Arg	Ser	Leu	Leu	Val	Phe	Tyr	Val	Leu	Val	Asn	Ser	Ser	Gln
701					740				745						750	
702	Thr	Leu	His	Asn	Lys	Met	Phe	Glu	Ser	Ile	Leu	Lys	Ala	Pro	Val	Leu
703					755				760						765	
704	Phe	Phe	Asp	Arg	Asn	Pro	Ile	Gly	Arg	Ile	Leu	Asn	Arg	Phe	Ser	Lys
705					770				775						780	
706	Asp	Ile	Gly	His	Leu	Asp	Asp	Leu	Leu	Pro	Leu	Thr	Phe	Leu	Asp	Phe
707	785					790					795					800
708	Ile	Gln	Thr	Leu	Leu	Gln	Val	Val	Gly	Val	Val	Ser	Val	Ala	Val	Ala
709					805					810						815
710	Val	Ile	Pro	Trp	Ile	Ala	Ile	Pro	Leu	Val	Pro	Leu	Gly	Ile	Ile	Phe
711					820				825						830	
712	Ile	Phe	Leu	Arg	Arg	Tyr	Phe	Leu	Glu	Thr	Ser	Arg	Asp	Val	Lys	Arg
713					835				840						845	
714	Leu	Glu	Ser	Thr	Thr	Arg	Ser	Pro	Val	Phe	Ser	His	Leu	Ser	Ser	Ser
715					850				855				860			
716	Leu	Gln	Gly	Leu	Trp	Thr	Ile	Arg	Ala	Tyr	Lys	Ala	Glu	Glu	Arg	Cys
717	865					870					875					880
718	Gln	Glu	Leu	Phe	Asp	Ala	His	Gln	Asp	Leu	His	Ser	Glu	Ala	Trp	Phe
719					885					890						895
720	Leu	Phe	Leu	Thr	Thr	Ser	Arg	Trp	Phe	Ala	Val	Arg	Leu	Asp	Ala	Ile
721					900				905						910	
722	Cys	Ala	Met	Phe	Val	Ile	Ile	Val	Ala	Phe	Gly	Ser	Leu	Ile	Leu	Ala
723					915				920						925	
724	Lys	Thr	Leu	Asp	Ala	Gly	Gln	Val	Gly	Leu	Ala	Leu	Ser	Tyr	Ala	Leu
725					930				935						940	

PAGE: 16

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

726 Thr Leu Met Gly Met Phe Gln Trp Cys Val Arg Gln Ser Ala Glu Val
727 945 950 955 960
728 Glu Asn Met Met Ile Ser Val Glu Arg Val Ile Glu Tyr Thr Asp Leu
729 965 970 975
730 Glu Lys Glu Ala Pro Trp Glu Tyr Gln Lys Arg Pro Pro Ala Trp
731 980 985 990
732 Pro His Glu Gly Val Ile Ile Phe Asp Asn Val Asn Phe Met Tyr Ser
733 995 1000 1005
734 Pro Gly Gly Pro Leu Val Leu Lys His Leu Thr Ala Leu Ile Lys Ser
735 1010 1015 1020
736 Gln Glu Lys Val Gly Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser
E--> 737 1025 1030 1035 1040
738 Leu Ile Ser Ala Leu Phe Arg Leu Ser Glu Pro Glu Gly Lys Ile Trp
739 1045 1050 1055
740 Ile Asp Lys Ile Leu Thr Thr Glu Ile Gly Leu His Asp Leu Arg Lys
741 1060 1065 1070
742 Lys Met Ser Ile Ile Pro Gln Glu Pro Val Leu Phe Thr Gly Thr Met
743 1075 1080 1085
744 Arg Lys Asn Leu Asp Pro Phe Asn Glu His Thr Asp Glu Leu Trp
745 1090 1095 1100
746 Asn Ala Leu Gln Glu Val Gln Leu Lys Glu Thr Ile Glu Asp Leu Pro
E--> 747 1105 1110 1115 1120
748 Gly Lys Met Asp Thr Glu Leu Ala Glu Ser Gly Ser Asn Phe Ser Val
749 1125 1130 1135
750 Gly Gln Arg Gln Leu Val Cys Leu Ala Arg Ala Ile Leu Arg Lys Asn
751 1140 1145 1150
752 Gln Ile Leu Ile Ile Asp Glu Ala Thr Ala Asn Val Asp Pro Arg Thr
753 1155 1160 1165
754 Asp Glu Leu Ile Gln Lys Lys Ile Arg Glu Lys Phe Ala His Cys Thr
755 1170 1175 1180
756 Val Leu Thr Ile Ala His Arg Leu Asn Thr Ile Ile Asp Ser Asp Lys
E--> 757 1185 1190 1195 1200
758 Ile Met Val Leu Asp Ser Gly Arg Leu Lys Glu Tyr Asp Glu Pro Tyr
759 1205 1210 1215
760 Val Leu Leu Gln Asn Lys Glu Ser Leu Phe Tyr Lys Met Val Gln Gln
761 1220 1225 1230
762 Leu Gly Lys Ala Glu Ala Ala Ala Leu Thr Glu Thr Ala Lys Gln Arg
763 1235 1240 1245
764 Trp Gly Phe Thr Met Leu Ala Arg Leu Val Ser Asn Ser
765 1250 1255 1260

766 <210> 551
E--> 767 <211> 15 ||
768 <212> PRT
769 <213> Artificial Sequence
770 <220>
771 <223> Made in a lab
772 <400> 551
773 Phe Asp Lys Ser Asp Leu Ala Lys Tyr Ser Ala

774 <210> 574

← add numbering

PAGE: 17

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

E--> 775 <211> 63 62
776 <212> PRT
777 <213> Homo sapiens
778 <400> 574
779 Met Thr His Ser Ser Ala Trp Leu Glu Arg Pro Gln Glu Thr Tyr Asn
780 5 10 15
781 His Gly Gly Arg Arg Arg Gly Ser Lys Ala Arg Leu Thr Trp Trp Gln
782 20 25 30
783 Glu Arg Thr Ser Glu Gly Gly Asp Cys His Lys Leu Phe Phe Phe Glu
784 35 40 45
785 Thr Arg Val Trp Pro Cys Cys Pro Gly Trp Ser Ala Val Ala
786 50 55 60

787 <210> 575
E--> 788 <211> 77 76
789 <212> PRT
790 <213> Homo sapiens
791 <400> 575
792 Met Val Lys Ser Arg Phe Thr Lys Asn Thr Lys Ile Thr Gln Ala Trp
793 5 10 15
794 Trp Arg Ala Pro Val Ile Pro Gly Thr Arg Glu Ala Glu Gly Gly Glu
795 20 25 30
796 Ser Leu Glu Pro Gly Arg Leu Arg Glu Glu Asn Arg Leu Asn Pro Gly
797 35 40 45
798 Gly Arg Gly Cys Ser Glu Pro Arg Ser Cys Cys Cys Thr Pro Ala Trp
799 50 55 60
800 Ser Thr Glu Gln Asp Ser Ala Ser Lys Thr Asn Lys
801 65 70 75

802 <210> 576
E--> 803 <211> 69 68
804 <212> PRT
805 <213> Homo sapiens
806 <220>
807 <221> unsure
808 <222> (42)
809 <223> Xaa = Any Amino Acid
810 <400> 576
811 Met Leu Gly Lys Ser Arg Ala Val Cys Leu Pro Ser Thr Thr Val Thr
812 5 10 15
813 Thr Val Cys Tyr Leu Ala Ser Ser Ser Ala Ser Arg Glu Thr Ala Thr
814 20 25 30
W-->OK 815 Arg Gln Ala Pro Gly Asn Trp Lys Met Xaa Ser Lys Cys His Ala Gln
816 35 40 45
817 Leu Leu Phe Thr Phe Tyr Leu Asn His Phe Tyr Gln Ile Arg Leu Asn
818 50 55 60
819 Pro Gly Tyr Ser
820 65

821 <210> 577

PAGE: 18

RAW SEQUENCE LISTING
 PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
 TIME: 14:08:18

Input Set: I483672.RAW

E--> 822 <211> 58 57
 823 <212> PRT
 824 <213> Homo sapiens
 825 <400> 577
 826 Met Tyr Leu Glu Asn Ser Phe Tyr Cys Gln Met Ile Leu Leu Lys Arg
 827 5 10 15
 828 Cys Arg Leu Ser Lys Ile Ser Thr Gln Arg Val Val Pro Asp Gly Pro
 829 20 25 30
 830 Pro Ala Pro Val Pro Gly Ser Phe Pro Met Phe Pro Arg Phe Gly Phe
 831 35 40 45
 832 Arg Leu Ala Pro Pro Ala Asp Thr Pro
 833 50 55

834 <210> 578
 E--> 835 <211> 52 51
 836 <212> PRT
 837 <213> Homo sapiens
 838 <400> 578
 839 Met Gln Leu Ile Tyr Leu Cys Phe Leu Gly Leu Leu Tyr Ile Arg His
 840 5 10 15
 841 His Asp Ser Gln Ser Phe Val Ile Leu Tyr Tyr Lys Lys Leu Asn Tyr
 842 20 25 30
 843 Tyr Phe Lys Tyr Gly Gln Ile Arg Ala Phe His Ile Ala Lys Val Tyr
 844 35 40 45
 845 Gln Pro His
 846 50

847 <210> 579
 E--> 848 <211> 57 56
 849 <212> PRT
 850 <213> Homo sapiens
 851 <400> 579
 852 Met His Phe Thr Phe Met Gln Leu Ile Tyr Leu Cys Phe Leu Gly Leu
 853 5 10 15
 854 Leu Tyr Ile Arg His His Asp Ser Gln Ser Phe Val Ile Leu Tyr Tyr
 855 20 25 30
 856 Lys Lys Leu Asn Tyr Tyr Phe Lys Tyr Gly Gln Ile Arg Ala Phe His
 857 35 40 45
 858 Ile Ala Lys Val Tyr Gln Pro His
 859 50 55

860 <210> 580
 E--> 861 <211> 58 67
 862 <212> PRT
 863 <213> Homo sapiens
 864 <400> 580
 865 Met Glu Leu Arg Thr Lys Ala Leu Arg Thr Ala Gln Gln Leu Thr Ser
 866 5 10 15
 867 Cys Val Thr Ala Leu Lys Ala Ala Gly Pro Pro Leu Thr Phe Trp Lys
 868 20 25 30

PAGE: 19

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

 DATE: 02/08/2000
 TIME: 14:08:18

Input Set: I483672.RAW

```

869      Gly Lys Trp Val Gln Cys Cys Leu Pro Leu Trp Gly Leu Leu Gly Ser
870              35                      40                      45
871      His Ala Phe Tyr Ile Tyr Ala Val Asp Ile Phe Met Phe Pro Gly Ser
872              50                      55                      60
873      Phe Ile His
874              65

```

```

E--> 875      <210> 581
      876      <211> 78 77
      877      <212> PRT
      878      <213> Homo sapiens
      879      <400> 581
      880      Met Leu Glu Val Lys Phe Glu Val Ser Leu Arg Pro Thr Gly Asn Glu
      881              5                      10                      15
      882      Thr Ala Gly Gln Thr His Gly Thr Gln Asp Lys Gly Ser Lys Asp Ser
      883              20                      25                      30
      884      Thr Ala Ala Asp Ile Leu Cys Asp Ser Leu Glu Ser Ser Arg Pro Ala
      885              35                      40                      45
      886      Ala His Ile Leu Glu Gly Lys Met Gly Thr Met Leu Ser Ala Thr Leu
      887              50                      55                      60
      888      Gly Pro Ser Trp Val Thr Cys Ile Leu His Leu Cys Ser
      889              65                      70                      75

```

```

E--> 890      <210> 582
      891      <211> 52 51
      892      <212> PRT
      893      <213> Homo sapiens
      894      <400> 582
      895      Met Leu Phe Leu Gln Thr Ile Asp Thr Lys Cys Thr Gly Ile Glu Ile
      896              5                      10                      15
      897      Asn Arg Asn Trp Ser Lys Val Trp His Thr His Ser His Val Asp Val
      898              20                      25                      30
      899      Lys Leu Cys Leu Glu Phe Leu Cys Gly Val Trp Phe Gly Leu Gly Phe
      900              35                      40                      45
      901      Leu Gly Val
      902              50

```

```

E--> 903      <210> 583
      904      <211> 61 60
      905      <212> PRT
      906      <213> Homo sapiens
      907      <400> 583
      908      Met Ser Thr Ser Asp Gly Phe Ala Pro Pro Pro Gln Leu Gly Ser Arg
      909              5                      10                      15
      910      Cys Ser His Ile Arg Gly Pro Ile Lys Ile Ala Arg Asn Lys Phe Pro
      911              20                      25                      30
      912      Arg Thr Leu Thr Ser Gln Glu Leu Arg Arg Phe Ala Glu Tyr Ser Gly
      913              35                      40                      45
      914      Met Met Phe Gly Asp Gln Thr Thr Ala Gly Gln Lys
      915              50                      55                      60

```

PAGE: 20

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

```

916 <210> 584
E--> 917 <211> 77 76
918 <212> PRT
919 <213> Homo sapiens
920 <400> 584
921 Met Cys Leu Cys Ile Pro Leu Gly Gly Tyr Gln Glu Leu Cys His Cys
922                      5                      10                      15
923 Met Ser Thr Ser Asp Gly Phe Ala Pro Pro Pro Gln Leu Gly Ser Arg
924                      20                      25                      30
925 Cys Ser His Ile Arg Gly Pro Ile Lys Ile Ala Arg Asn Lys Phe Pro
926                      35                      40                      45
927 Arg Thr Leu Thr Ser Gln Glu Leu Arg Arg Phe Ala Glu Tyr Ser Gly
928                      50                      55                      60
929 Met Met Phe Gly Asp Gln Thr Thr Ala Gly Gln Lys
930                      65                      70                      75

```

```

931 <210> 585
E--> 932 <211> 51 50
933 <212> PRT
934 <213> Homo sapiens
935 <400> 585
936 Met Val Tyr Arg Phe Gly Gln Met Ser Asp Asn Pro Phe Tyr Ile Leu
937                      5                      10                      15
938 Ala Ser Leu Gly Ser Ser Ser Cys Arg Asn Gly Leu Ala Ser Lys Trp
939                      20                      25                      30
940 Arg Gln Ala Asp Pro Ser Asp Gly Tyr Met Glu Pro Cys Phe Gln Leu
941                      35                      40                      45
942 Leu Phe
943                      50

```

```

944 <210> 586
E--> 945 <211> 61 60
946 <212> PRT
947 <213> Homo sapiens
948 <400> 586
949 Met Leu Val His Ile Tyr Ser Cys Cys Gly Met Val Tyr Arg Phe Gly
950                      5                      10                      15
951 Gln Met Ser Asp Asn Pro Phe Tyr Ile Leu Ala Ser Leu Gly Ser Ser
952                      20                      25                      30
953 Ser Cys Arg Asn Gly Leu Ala Ser Lys Trp Arg Gln Ala Asp Pro Ser
954                      35                      40                      45
955 Asp Gly Tyr Met Glu Pro Cys Phe Gln Leu Leu Phe
956                      50                      55                      60

```

Input Set: I483672.RAW

Line	? Error/Warning	Original Text
28	W "N" or "Xaa" used: Feature required	anattantac agtghtaatct tttcccagag gtgtgtan
29	W "N" or "Xaa" used: Feature required	cccanagata ncttatanca acagtgtctt gaccaaga
31	W "N" or "Xaa" used: Feature required	ccatcangcc ttcggtggga gggagtcang gaaacaac
32	W "N" or "Xaa" used: Feature required	ntgatgacca tgggcgggag cgagcctctt ccctgnac
33	W "N" or "Xaa" used: Feature required	nctgaggggt cacactataa acgttaacga ccnagatn
34	W "N" or "Xaa" used: Feature required	ttctacctg acnaccang accnnnaact gngcctg
35	W "N" or "Xaa" used: Feature required	acnnagcaact cacctgcccc cccatggcgc tncgcntc
36	W "N" or "Xaa" used: Feature required	ccctgttga attncgggga naccaaggga nccccctc
37	W "N" or "Xaa" used: Feature required	gatggaattt tnccttccg gccnntcccc tcttctt
38	W "N" or "Xaa" used: Feature required	tccctctntt ntctgncnc acttttnacc ccnnnatt
39	W "N" or "Xaa" used: Feature required	ganattccac tnnccctnc cntcnatcng naanacna
40	E Number of Bases conflict w/ Running Total	gggnncctcg ntcactctt ctttttncnt accnccnn
40	E Wrong Nucleic Acid Designator	gggnncctcg ntcactctt ctttttncnt accnccnn
40	E Wrong Nucleic Acid Designator	gggnncctcg ntcactctt ctttttncnt accnccnn
40	E Wrong Nucleic Acid Designator	gggnncctcg ntcactctt ctttttncnt accnccnn
40	W "N" or "Xaa" used: Feature required	gggnncctcg ntcactctt ctttttncnt accnccnn
42	E Input 780820, Calc# Bases 820 differ	<211> 155
67	E Input 141, Calc Seq.Length 140 differ	<211> 141
90	E Input 144, Calc Seq.Length 143 differ	<211> 144
113	E Input 223, Calc Seq.Length 222 differ	<211> 223
146	E Input 145, Calc Seq.Length 144 differ	<211> 145
169	E Input 168, Calc Seq.Length 167 differ	<211> 168
196	E Input 144, Calc Seq.Length 143 differ	<211> 144
219	E Input 144, Calc Seq.Length 143 differ	<211> 144
272	W "N" or "Xaa" used: Feature required	Ala Gly Gly Gly Gln Xaa Gln Xaa Asp Ser C
279	E Invalid/Missing Amino Acid Numbering	245 250
316	E Invalid/Missing Amino Acid Numbering	245 250
318	E Input 321, Calc Seq.Length 320 differ	<211> 321
363	E Input 293, Calc Seq.Length 292 differ	<211> 293
406	E Input 267, Calc Seq.Length 266 differ	<211> 267
445	E Input 1229, Calc Seq.Length 1228 differ	<211> 1229
578	E Invalid/Missing Amino Acid Numbering	1025 1030
588	E Invalid/Missing Amino Acid Numbering	1105 1110
598	E Invalid/Missing Amino Acid Numbering	1185 1190
604	E Input 1262, Calc Seq.Length 1261 differ	<211> 1262
737	E Invalid/Missing Amino Acid Numbering	1025 1030
747	E Invalid/Missing Amino Acid Numbering	1105 1110
757	E Invalid/Missing Amino Acid Numbering	1185 1190
767	E Input 15, Calc Seq.Length 11 differ	<211> 15
775	E Input 63, Calc Seq.Length 62 differ	<211> 63
788	E Input 77, Calc Seq.Length 76 differ	<211> 77
803	E Input 69, Calc Seq.Length 68 differ	<211> 69
815	W "N" or "Xaa" used: Feature required	Arg Gln Ala Pro Gly Asn Trp Lys Met Xaa S
822	E Input 58, Calc Seq.Length 57 differ	<211> 58
835	E Input 52, Calc Seq.Length 51 differ	<211> 52
848	E Input 57, Calc Seq.Length 56 differ	<211> 57
861	E Input 68, Calc Seq.Length 67 differ	<211> 68
876	E Input 78, Calc Seq.Length 77 differ	<211> 78
891	E Input 52, Calc Seq.Length 51 differ	<211> 52
904	E Input 61, Calc Seq.Length 60 differ	<211> 61

VERIFICATION SUMMARY
PATENT APPLICATION US/09/483,672

DATE: 02/08/2000
TIME: 14:08:18

Input Set: I483672.RAW

Line	? Error/Warning	Original Text
917	E Input 77, Calc Seq.Length 76 differ	<211> 77
932	E Input 51, Calc Seq.Length 50 differ	<211> 51
945	E Input 61, Calc Seq.Length 60 differ	<211> 61